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ABSTRACT OF THE DISCLOSURE

An endoscope is provided that comprises an imaging device such as a micro-size video camera supported by a novel device-steering shaft assembly. The shaft assembly comprises a malleable or rigid shaft, an imaging device carrier releasably and pivotally supporting the imaging device at one end of the shaft, and operating means including a flexible operating cable and cable moving means attached to the opposite end of the shaft for moving said cable and thereby pivoting the imaging device carrier relative to the shaft so as to alter the viewing angle of the supported imaging device. Using a malleable shaft offers the advantage that the shaft is manually reformable into various configurations to facilitate access to different surgical sites, with the shaft having the ability to remain in each selected configuration until manually reformed into another configuration. Alternatively, the imaging device may be permanently attached to the device carrier. A routing configuration for the cable permits the imaging device to be rotated sufficiently to attain retrograde viewing. The endoscope may be converted to another instrument by replacing the imaging device on the device carrier with some other device such as a surgical laser, a magnetic sensor, an infra-red or other radiation sensor, an infra-red or other radiation transmitter, an ultrasonic transducer, or other surgical device such as a surgical scissors or a grasper.

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